APPROVED O.G. FIG.
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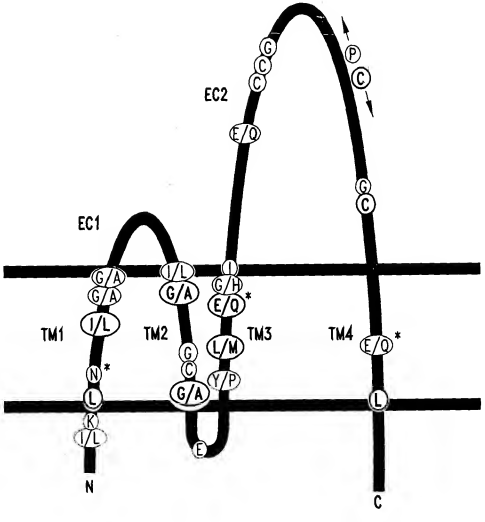

Fig. 1

APPROVED | O.G. FIG. | CLASS | SUBCLASS | BY | DRAFTSMAN

```
  1  CTTCCTCGGC CGAGCCGGGC CGCGCGGCCG CTGCCGCCGC CGCGCGCGGA
     GAAGGAGCCG GCTCGGCCCG GCGCGCCGGC GACGGCGGCG GCGCGCGCCT

 +1                  ]----------------------------------
 51  TTCTGCTTCT CAGAAGATGC ACTATTATAG ATACTCTAAC GCCAAAGTCA
     AAGACGAAGA GTCTTCTACG TGATAATATC TATGAGATTG CGGTTTCAGT

 +1 ----------------------------------------------------
101  GCTGCTGGTA CAAGTACCTC CTTTTCAGCT ACAACATCAT CTTCTGGTTG
     CGACGACCAT GTTCATGGAG GAAAAGTCGA TGTTGTAGTA GAAGACCAAC
 -3                                   <------------------

 +3                                ]----------------------
 +1 ----------------------------------------------------
151  GCTGGAGTTG TCTTCCTTGG AGTCGGGCTG TGGGCATGGA GCGAAAAGGG
     CGACCTCAAC AGAAGGAACC TCAGCCGAC ACCCGTACCT CGCTTTTCCC
 -3 ----------------------------------------------------

 +3 ----------------------------------------------------
 +1 ----------------------------------------------------
201  TGTGCTGTCC GACCTCACCA AAGTGACCCG GATGCATGGA ATCGACCCTG
     ACACGACAGG CTGGAGTGGT TTCACTGGGC CTACGTACCT TAGCTGGGAC
 -3 ----------------------------------------------------

 +3 ----------------------------------------------------
 +1 ----------------------------------------------------
251  TGGTGCTGGT CCTGATGGTG GGCGTGGTGA TGTTCACCCT GGGGTTCGCC
     ACCACGACCA GGACTACCAC CCGCACCACT ACAAGTGGGA CCCCAAGCGG
 -3 ----------------------------------------------------

 +3 ----------------------------------------------------
 +1 ----------------------------------------------------
301  GGCTGCGTGG GGGCTCTGCG GGAGAATATC TGCTTGCTCA ACTTTTTCTG
     CCGACGCACC CCCGAGACGC CCTCTTATAG ACGAACGAGT TGAAAAAGAC
 -3 ----------------------------------------------------

 +3 ----------------------------------------------------
 +1 ----------------------------------------------------
351  TGGCACCATC GTGCTCATCT TCTTCCTGGA GCTGGCTGTG GCCGTGCTGG
     ACCGTGGTAG CACGAGTAGA AGAAGGACCT CGACCGACAC CGGCACGACC
```

Fig. 2A

APPROVED O.G. FIG.
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```
      +3 ------------------------------------------------------
      +1 ------------------------------------------------------
401   CCTTCCTGTT CCAGGACTGG GTGAGGGACC GGTTCCGGGA GTTCTTCGAG
      GGAAGGACAA GGTCCTGACC CACTCCCTGG CCAAGGCCCT CAAGAAGCTC
      -3 ------------------------------------------------------

      +3 ------------------------------------------------------
      +1 ------------------------------------------------------
                                        ClaI
                                        ~~~~~~
451   AGCAACATCA AGTCCTACCG GGACGATATC GATCTGCAAA ACCTCATCGA
      TCGTTGTAGT TCAGGATGGC CCTGCTATAG CTAGACGTTT TGGAGTAGCT
      -3 -------[

      +3 --------------->
      +1 ------------------------------------------------------
501   CTCCCTTCAG AAAGCTAACC AGTGCTGTGG CGCATATGGC CCTGAAGACT
      GAGGGAAGTC TTTCGATTGG TCACGACACC GCGTATACCG GGACTTCTGA

      +1 ------------------------------------------------------
551   GGGACCTCAA CGTCTACTTC AATTGCAGCG GTGCCAGCTA CAGCCGAGAG
      CCCTGGAGTT GCAGATGAAG TTAACGTCGC CACGGTCGAT GTCGGCTCTC

      +1 ------------------------------------------------------
601   AAGTGCGGGG TCCCCTTCTC CTGCTGCGTG CCAGATCCTG CGCAAAAAGT
      TTCACGCCCC AGGGGAAGAG GACGACGCAC GGTCTAGGAC GCGTTTTTCA

      +1 ------------------------------------------------------
651   TGTGAACACA CAGTGTGGAT ATGATGTCAG GATTCAGCTG AAGAGCAAGT
      ACACTTGTGT GTCACACCTA TACTACAGTC CTAAGTCGAC TTCTCGTTCA

      +1 ------------------------------------------------------
701   GGGATGAGTC CATCTTCACG AAAGGCTGCA TCCAGGCGCT GGAAAGCTGG
      CCCTACTCAG GTAGAAGTGC TTTCCGACGT AGGTCCGCGA CCTTTCGACC

      +1 ------------------------------------------------------
751   CTCCCGCGGA ACATTTACAT TGTGGCTGGC GTCTTCATCG CCATCTCGCT
      GAGGGCGCCT TGTAAATGTA ACACCGACCG CAGAAGTAGC GGTAGAGCGA
      -1                                        <-------------
```

Fig. 2B

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS

```
   +1 ----------------------------------------------------
  801  GTTGCAGATA TTTGGCATCT TCCTGGCAAG GACGCTGATC TCAGACATCG
       CAACGTCTAT AAACCGTAGA AGGACCGTTC CTGCGACTAG AGTCTGTAGC
   -1 ----------------------------------------------------

   +1 ----------------------------------------------------
  851  AGGCAGTGAA GGCCGGCCAT CACTTCTGAG GAGCAGAGTT GAGGGAGCCG
       TCCGTCACTT CCGGCCGGTA GTGAAGACTC CTCGTCTCAA CTCCCTCGGC
   -1 ----------------------------------------------------

  901  AGCTGAGCCA CGCTGGGAGG CCAGAGCCTT TCTCTGCCAT CAGCCCTACG
       TCGACTCGGT GCGACCCTCC GGTCTCGGAA AGAGACGGTA GTCGGGATGC
   -1 ----------------------------------------------------

   +1                                          ]----------
  951  TCCAGAGGGA GAGGAGCCGA CACCCCCAGA GCCAGTGCCC CATCTTAAGC
       AGGTCTCCCT CTCCTCGGCT GTGGGGGTCT CGGTCACGGG GTAGAATTCG
   -1 ------------------------[

   +1 ----------------------------------------------------
 1001  ATCAGCGTGA CGTGACCTCT CTGTTTCTGC TTGCTGGTGC TGAAGACCAA
       TAGTCGCACT GCACTGGAGA GACAAAGACG AACGACCACG ACTTCTGGTT

   +1 ----------------------------------------------------
 1051  GGGTCCCCCT TGTTACCTGC CCAAACTTGT GACTGCATCC CTCTGGAGTC
       CCCAGGGGGA ACAATGGACG GGTTTGAACA CTGACGTAGG GAGACCTCAG

   +1 ----------------------------------------------------
 1101  TACCCAGAGA CAGAGAATGT GTCTTTATGT GGGAGTGGTG ACTCTGAAAG
       ATGGGTCTCT GTCTCTTACA CAGAAATACA CCCTCACCAC TGAGACTTTC
   -1   <--------------------------------------------------

   +1 ----------------------------------------------------
                                                      PstI
                                                      ~~~~
 1151  ACAGAGAGGG CTCCTGTGGC TGCCAGGAGG GCTTGACTCA GACCCCCTGC
       TGTCTCTCCC GAGGACACCG ACGGTCCTCC CGAACTGAGT CTGGGGGACG
   -1 ----------------------------------------------------
```

Fig. 2C

APPROVED BY DRAFTSMAN O.G. FIG. CLASS SUBCLASS

```
    +1 ------------------------------------------------------
       Pst1
       ~~
1201   AGCTCAAGCA TGTCTGCAGG ACACCCTGGT CCCYTYTCCA YTGGCWTCCA
       TCGAGTTCGT ACAGACGTCC TGTGGGACCA GGGRARAGGT RACCGWAGGT
    -1 ------------------------------------------------------

    +1 ----------------------------------->
1251   GACATCTGCT TTGGGTCATC CACATCTGTG GGTNGGCCGT GGGTAGAGGG
       CTGTAGACGA AACCCAGTAG GTGTAGACAC CCANCCGGCA CCCATCTCCC
    -1 ------------------------------------------------------

1301   ACCCACAGGC GTGGACAGGG CATCTCTCTC CATCAAGCAA AGCAGCATGG
       TGGGTGTCCG CACCTGTCCC GTAGAGAGAG GTAGTTCGTT TCGTCGTACG
    -1 ------------------------------------------------------[

1351   GGGGCCTTGC CGTAAACGGG AGGCGNGACG TTGGCCC
       CCCCGGAACG GCATTTGCCC TCCGCNCTGC AACCGGG
```

Fig. 2D

APPROVED O.G. FIG.
BY CLASS SUBCLASS
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```
  1  MHYYRYSNAK VSCWYKYLLF SYNIIFWLAG VVFLGVGLWA WSEKGVLSDL
 51  TKVTRMHGID PVVLVLMVGV VMFTLGFAGC VGALRENICL LNFFCGTIVL
101  IFFLELAVAV LAFLFQDWVR DRFREFFESN IKSYRDDIDL QNLIDSLQKA
151  NQCCGAYGPE DWDLNVYFNC SGASYSREKC GVPFSCCVPD PAQKVVNTQC
201  GYDVRIQLKS KWDESIFTKG CIQALESWLP RNIYIVAGVF IAISLLQIFG
251  IFLARTLISD IEAVKAGHHF
```

Fig. 3

NTSP5:P104	CHIR22-1	TGCAGCCTTTCGTGAAGATGGACTC	25 (7-11-7)
NTSP5:P727	CHIR22-2	CCCCATGCTGCTTTGCTTGATGGAG	25 (7-11-7)
NTSP5:P285	CHIR22-3	GCTCAGCTCGGCTCCCTCAACTC	23 (7-9-7)
NTSP5:P456	CHIR22-4	CACAAGTTTGGGCAGGTAACAAGGG	25 (7-11-7)
NTSP5:P395	CHIR22-5	AGAGGTCACGTCACGCTGATGCTTA	25 (7-11-7)
NTSP5:P104	CHIR22-1RC	CTCAGGTAGAAGTGCTTTCCGACGT	25 (7-11-7)
NTSP5:P727	CHIR22-2RC	GAGGTAGTTCGTTTCGTCGTACCCC	25 (7-11-7)
NTSP5:P285	CHIR22-3RC	CTCAACTCCCTCGGCTCGACTCG	23 (7-9-7)
NTSP5:P456	CHIR22-4RC	GGGAACAATGGACGGGTTTGAACAC	25 (7-11-7)
NTSP5:P395	CHIR22-5RC	ATTCGTAGTCGCACTACGCTGGAGA	25 (7-11-7)

Fig. 4

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS

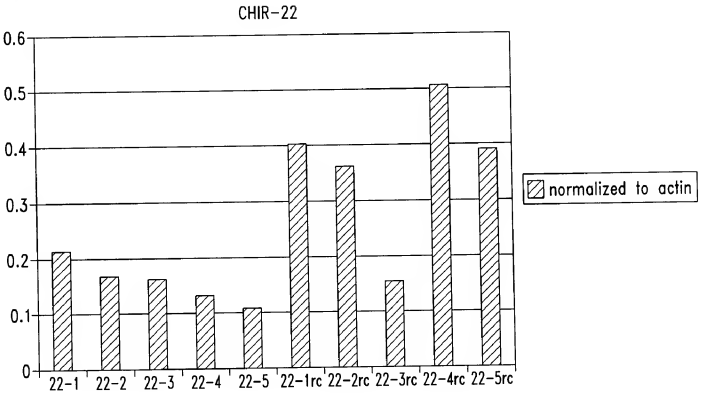

Fig. 5

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS

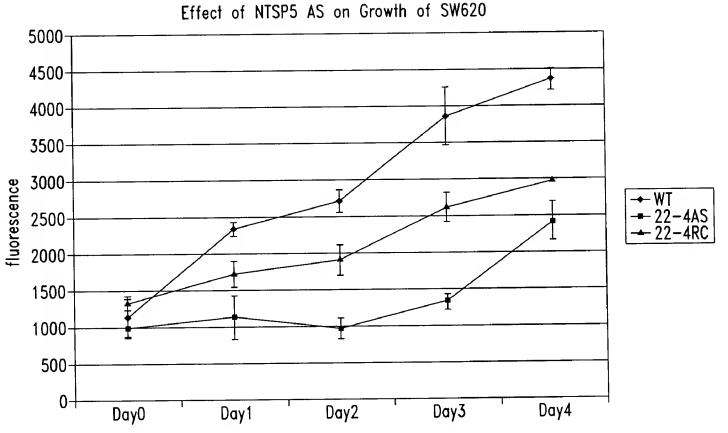

Fig. 6